



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,929	03/15/2004	Sergei Meleshchuk	MS306463.01	2328
69316	7590	12/10/2007		
MICROSOFT CORPORATION ONE MICROSOFT WAY REDMOND, WA 98052				
			EXAMINER	
			CHEN, ALAN S	
			ART UNIT	PAPER NUMBER
			2182	
			MAIL DATE	DELIVERY MODE
			12/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/801,929

Applicant(s)

MELESHCHUK, SERGEI

Examiner

Alan S. Chen

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-26, 29-35 and 38-40 is/are rejected.
- 7) ☒ Claim(s) 5, 16, 27, 28, 36 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 08/31/07 has been entered.

Response to Arguments

2. The 35 U.S.C. §112 rejection has been vacated, see reasons given in advisory action submitted 07/18/07.
3. Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Specification

4. The amended title is acceptable.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2182

6. Claims 1-4,6-15,17-26,29-35 and 38-40 are rejected under 35

U.S.C. 102(e) as being anticipated by US Pat. No. 6,952,739 to Fritz et al. (*Fritz*).

7. Per claim 1, Fritz disclose a method comprising: determining an amount of time to communicate a message and receive response to the message by a first process respectively to and from a second process (*Column 3, lines 10-15, the length of time between a write process and a read process is determined. Here the write process is the first process and the read process is the second process; Column 4, lines 45-60 disclose the specific time points that are determined*); computing a buffer delay time from the amount of time (*Column 3, lines 14-20 disclose the time gap is determined such that a predetermined delay is decreased by a first value; here the adjusted predetermined delay time is construed to be the buffer delay*); storing data from the first process in a buffer (*Fig. 2, CASE C shows data is written and stored in the buffer between t1 and t3*); and when the buffer delay time is reached (*Fig. 2, at time t3; Column 3, lines 9-11, "...When the delay time has passed reading data out from the buffer is started..."*), making the data in the buffer available to the second process by passing control of the buffer to the second process without communicating the data by the first process (*Column 3, lines 9-11; Fig. 1, elements 112 and 114 are read enable and read addresses which is controlled by the read process, e.g., the second process; the write process controls is independent of the read process controls*).

8. Per claim 2, Fritz discloses claim 1, further disclosing being able to handle both underrun and overrun conditions (*Column 2, lines 13-35*) using the same

Art Unit: 2182

methodology shown in Fig. 2, CASE C. Hence, when the buffer is full or close to full, data will be read out of the buffer using the read control signals.

9. Per claim 3, Fritz discloses claim 1, wherein determining includes: forming a communication to send the message from the first process to the second process (*data stored in the buffer in Fig. 1 is construed to be the message from the first write process to the second write process*); receiving the response to the message by the first process from the second process (*read enable is construed to be the response to having data in the buffer*); and monitoring a timer in relation to the communicating and the receiving to determine the amount of time (*Column 3, lines 13-16, time gap is calculated to determine the how to adjust the predetermined delay time*).

10. Per claim 4, Fritz discloses claim 1, further disclosing the buffer delay time is computed to be double the amount of time (*if the amount of time is calculated as end of write and end of read, e.g., Fig. 2, element P4, then the literal delay time between start of write and start of read is clearly double or more the amount of time, e.g., Fig. 2, element P3*).

11. Per claims 6-8, Fritz discloses claim 1, wherein the first and second processes can be from written from one program and read to another program, similarly one client to another (*Column 1, lines 25-30, two software systems*).

12. Per claim 9, Fritz discloses claim 1, wherein the sending includes passing control over the data in the buffer from the first process to the second process by the first process using a send operation (*Fig. 1, elements 112 and 114 are lines that enable the read, e.g., send to device at output port*).

Art Unit: 2182

13. Per claim 10, Fritz discloses claim 1, wherein the making includes communicating the stored data within the buffer to the second process (*Fig. 1, data is communicated over data bus, element 116*).

14. Per claim 11, Fritz discloses claim 1, further disclosing the buffer system is embodied in hardware, intrinsically having a memory to store instructions to perform the operations of the buffer system (*Figs. 3 and 4*).

15. Per claim 12, Fritz discloses a method comprising: sending a message from a first process addressed to a second process (*Fig. 1, write process is write data intended for the device on the output port*); receiving, at the first process, a response to the message sent from the second process to the first process (*Fig. 1, read process enables the readout of the buffer when there data from the write process*); computing a buffer delay time as a factor of the time between the communicating and the receiving (*Column 3, lines 14-20 disclose the time gap is determined such that a predetermined delay is decreased by a first value; here the adjusted predetermined delay time is construed to be the buffer delay*); and making data from the first process that is stored in the buffer available to the second process when the buffer delay time is reached by passing control of the buffer from the first process to the second process without communicating the data by the first process (*Column 3, lines 9-11; Fig. 1, elements 112 and 114 are read enable and read addresses which is controlled by the read process, e.g., the second process; the write process controls is independent of the read process controls*).

Art Unit: 2182

16. Per claim 15, Fritz discloses claim 12, further disclosing storing additional data from the first process in a second said buffer (*Fig. 1 is the said buffer, within the buffer there are multiple entries to accept additional data until full*).

17. Per claims 13,14,17,18,19 and 20, claims 2,4,8,9,10 and 11, respectively, are significantly similar and therefore their rejections are applied accordingly.

18. Per claims 21-26, claims 1,3,11,2,4 and 9, respectively, embodies the claims limitations and therefore the rejections are applied accordingly.

Specifically, the only substantial additions to claims 21-26 relate to hardware embodiments of previously rejected claims. Fritz specifically discloses implementation of several of the features in a processor (*Column 3, lines 30-35*), being part of a client device as well as having the equivalent of an interprocess control manager (*Fig. 3, elements 312,324,322*).

19. Per claim 29, Fritz discloses claim 21, further showing the IPC manager is executable to cancel the processing performed by the second process in response to a communication from the first process (*read may not be enable, therefore not performing a read process*).

20. Per claims 30-35, previously rejected claims 21-24,29 and 25, respectively are significantly similar and therefore the rejections are applied accordingly. Fig. 3 and 4 of Fritz are construed to be part of the system.

21. Per claims 38-40, claims 4 and 8 are significantly similar, therefore their rejections are applied accordingly. Fig. 3 and 4 of Fritz are construed to be part of the system.

Allowable Subject Matter

22. Claims 5,16,27,28,36 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is the statement of reasons for the indication of allowable subject matter: The prior art disclosed by the applicant and cited by the Examiner fail to teach or suggest, alone or in combination, ***all*** the limitations of the independent claim(s) (*claim 1,12,21*), particularly allocating the buffer using a buffer size table wherein entries in the table describe an amount of another buffer used to store data from the first process (*claims 5,16,27 and 36*); a buffer delay table having a plurality of entries, each entry describing a buffer delay time that was previously computed by the IPC manager, wherein the IPC manager computes the buffer delay time from the amount of time and the previously computed buffer delay times (*claims 28 and 37*).

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Tsai can be reached on 571-272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2182

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASC
11/28/07

Man B. Pan
11/28/07